Indiana K-6 Reading Framework

Instruction

	Reading Goals	Instruction	Assessment	Leadership	Professional Development	Commitment
Schools		★				

Guiding Principles:

- ☑ Sufficient scheduled, protected, and effectively used time for daily, comprehensive reading instruction;
- ☑ Programs and materials based on scientifically-based reading research that focus on the essential skills and content standards and that are adopted and used school-wide with a high level of fidelity;
- ☑ Instruction that is explicit, systematic, efficient, and high quality;
- ☑ Instruction aligned with established grade level standards that clearly delineate student expectations;
- ☑ Assessment data used to inform instruction for all students and to monitor student learning of critical skills students need at each stage of reading development;
- ☑ Instruction that is differentiated and targeted based on student need;
- ☑ Effective instructional delivery that promotes high levels of student engagement

Since the ability to read is a crucial lifelong skill, providing effective reading instruction is a school's primary responsibility. Therefore, reading instruction must be central to a school's educational mission and not just in the early grades.[1] High quality reading instruction throughout each grade requires integration of five key elements: (1) sufficient and effectively used time for reading, (2) scientifically-based methods and strategies that target essential reading skills and content, (3) programs and materials that are based on scientifically-based reading research that target content, skills, and strategies and are used with fidelity, (4) differentiated instruction based on student need, and (5) effective teacher instructional delivery. A school's Reading Plan should explicitly address these key elements.

Instructional Time

Time does matter. In order for students to learn to read well, the school must allocate sufficient time for explicit reading instruction, and the time allotted must be uninterrupted and used effectively. Scheduling uninterrupted time for reading instruction will only be useful if students are academically engaged for the allotted time. Maximizing student engagement means ensuring that every minute of instruction counts. Students are academically engaged when they are actively involved in reading or writing about text and/or practicing related concepts and skills. **When students are only watching and listening, academic engagement is low and students' achievement is reduced.** In most classrooms, the teacher is very active, interacting with students all day long. Even though the teacher is very busy, the focus should be on what the students are doing. **During whole-class reading instruction, students often spend as much as 70% of their time passively watching and listening to others.[2]** Struggling readers are least likely to be engaged when they are not actively reading: reading is difficult for them and they are not always motivated to follow along while other students are reading. Struggling readers also typically read much less than good readers who tend to

[1] Kamil et al., 2008; Biancarosa & Snow, 2006; Torgesen, Houston, Miller, Rissman, & Kosanovich, 2007

[2] National Center for Reading First Technical Assistance, 2005, An introductory guide for Reading First coaches, Portsmouth, NH: RMC Research Corporation.

read more both in and out of school. They often read more text when called on to read aloud in class because of their ability to read fluently.

Students must be engaged for learning to occur. Engaged learning begins with explicit instruction followed by teacher modeling for the students. Student efforts are followed by corrective feedback from the teacher, shaping student skill development. With frequent student practice and continued feedback, the teacher can scaffold instruction to prompt students when needed as they practice and become more independent.

In grades K-3 students should receive at least 90 minutes of uninterrupted daily reading instruction focused on the five scientifically-based components of beginning reading: phonemic awareness, phonics, fluency, vocabulary, and comprehension.[3] For students who have not met formative or summative goals and are not meeting progress monitoring targets, additional reading time should be provided. Students well below benchmarks should receive more added time than students who are close to meeting their goals. Upper elementary students should also receive 90 minutes of reading instruction, but reading instruction should be broadened to include reading instruction alongside content area instruction. This may mean the 90 minutes will occur in chunks throughout the day. Students in these grades who are reading well below grade level will benefit from a separate intensive intervention that addresses the five components of reading previously noted. Students in all grades who are not meeting grade level targets should be provided additional intensive reading instruction. Another instance where supplemental materials may be necessary is for high ability students. Supplemental programs can extend the core reading program. However, to appropriately meet the needs of most high ability students, a replacement core program is needed. Replacement core programs are typically developed by researchers and publishers who are experts in working with gifted and talented students.

[3] Haager, Klingner, & Vaughn, 2007

Regardless of the grade, interventions need to be instructionally robust and targeted to student needs. The design should include appropriate group size and time allocation. For some students intensive interventions will focus on foundational skills. Other students may need interventions that focus on fluency, vocabulary, comprehension and background knowledge.[4] Additional instructional time is essential for English learners (EL)[5] to focus on vocabulary development, comprehension and background knowledge, and English syntactic structures and should be connected to specific instruction ELs receive during English Language Development.[6] The goal of the intervention is to accelerate reading development so that students can reduce the gap between current performance and grade level expectations.

Strong systematic instruction in the early grades should be preventive in nature; that is, by explicitly teaching students the important reading foundational skills carefully sequenced, the need for intervention will be diminished. In the upper elementary grades, strong instruction will enable students to extend and apply their skills as they encounter increasingly complex content. Both regular instruction and targeted interventions form the basis for ensuring all students meet or exceed grade level expectations. The effective interplay between initial instruction and intervention is described in more detail in the section on Assessment under the heading of Response to Instruction. This model calls for successively more intense and explicit instruction as well as increased time as student needs warrant. Using the framework of a three-tiered approach, the chart below describes minimum time allocation recommendations for the core program, as well as typical intervention time allocations based on level of student need. For ease of understanding, instruction without intervention will be referred to as core instruction or Tier 1. Targeted and intensive interventions will be referred to as Tiers 2 and 3 respectively.

[4] Kamil et al., 2008
[5] Gersten et al., 2007
[6] English language development (ELD) differs from reading instruction.

Time Allocations			
Grade Level	**Core (Tier 1)**	**Intervention (Tier 2)**	**Intensive Intervention (Tier 3)**
K-3	90-minute uninterrupted daily block	30-45 additional minutes daily	Up to 60 additional minutes daily or replacement of 90-minute core with a complete intensive intervention block
4-6	Recommended 90 minutes daily	30-45 additional minutes daily	Often a more specialized replacement of the core with a complete intensive intervention block

Using Time Effectively in Grades K-3

In grades K-3, the allocated reading time should focus on the five foundational components of reading instruction: phonemic awareness, phonics, fluency, vocabulary, and comprehension. Instructional time dedicated to social studies, science, and other content areas should also include practice applying the skills and strategies students learned during the reading block. Instructional time during reading should include whole class and small group differentiated instruction and literacy stations. By structuring learning time this way, the whole class instruction provides an efficient and equitable way to initiate instruction, while the small group instructional time enables the teacher to focus on specific skill needs and intensify instruction based on student progress. Thus, the small group instruction is an effective way to improve a student's response to initial instruction before adding additional time and additional intervention.[7] Small group time also provides a way to accelerate learning for high performing students. Small group instruction has the following benefits:

- allows teachers to work closely with individual students and monitor their performance;

[7] Elbaum, Vaughn, Hughes, and Moody, 1999; Torgesen, Fall 2004; Gersten et al., 2009

- enables teachers to work more directly with both struggling and high performing students to meet their learning needs;
- enables reteaching of skills initially taught to the whole class or pre-teaching of skills before they are taught to the whole class;
- allows teachers to address prerequisite skills that may not have been mastered at an earlier time or grade
- facilitates multiple student-teacher interactions and increased practice time;
- allows teachers to correct errors immediately and reinforce instructional concepts
- facilitates a more intimate setting for teachers to scaffold student learning, while building their independent use of the skills and strategies they have learned

In particular, small group instruction is especially beneficial for English learners. The group size and teacher focus allows English learners to have more opportunities for academic and oral language usage and can focus on particular syntactic knowledge (sentence structure) and morphological skills (understanding of prefixes, suffixes, and roots) that will enable students to more easily read and write in English.[8] In a small group setting students can also receive primary language support as needed.

Small group instruction is especially beneficial for English learners.

In the primary grades the size of the group and the amount of time spent in small group instruction is dependent both on resources and student performance. Students who are well below grade level need greater amounts of small group instruction than others. Students who are not meeting reading goals will benefit from small group instruction during the reading block and often an additional 30 minutes beyond the 90-minute reading block. It is important to provide small group time even for students meeting reading goals because it is an efficient and effective way to provide high performing students with accelerated and enriched instruction.[9]

[8] Gersten et al., 2007
[9] O'Connor 2007, Fletcher, Denton, Fuchs, & Vaughn, 2005

The table below provides general guidelines for small group sizes in the primary grades. However, program materials and specific student needs will also determine the most appropriate group sizes and the number of groups needed.

Guidelines for Small Group Sizes in Grades K-3[10]	
Student Skill Level	**Number of Students per Group**
Significantly below grade level	3-5
Somewhat below grade level	8 or fewer
Grade level or above	12 or fewer

In some cases the specific core, supplemental, and intervention reading programs will provide small group size guidelines and time recommendations, and the composition of the small groups should be based on student performance and need. By homogeneously grouping students during small group time based on identified skill need or performance level, teachers can target the specific range of skills needed and intensify or accelerate instruction. The extent to which the small group instruction is serving its purpose and the need for adjustments and added time should be based on reading data. This data should come from formative, progress monitoring assessments and diagnostic tests that provide information about the specific subskills of reading. (Refer to the Assessment section for more information about how to use detailed item analyses to target instruction.) [11]

While homogeneous grouping is important for many students, it may not always be the preferred grouping method, especially for English learners when the target focus is vocabulary development and reading comprehension. For English learners and native English speakers weak in vocabulary, a diverse group composition will provide more proficient language models. These groups could range from 3-6 students and should focus on multiple opportunities for active

[10] Oregon K-12 Literacy Framework, 2009
[11] Fuchs et al., 2008

language engagement with the teacher and peers.[12] However, when English learners are developing language and reading skills, small group instruction should be structured based on their specific need. When this is the case, homogeneous grouping is appropriate.

While teachers work with students in small groups, literacy stations can be used to maximize student engagement and provide differentiated instruction. These are special places in the classroom where students can work in small groups, pairs, or individually. Each literacy station contains meaningful, purposeful activities that reinforce or extend what the teacher has already taught explicitly in reading groups or during the whole group lesson. Literacy stations offer students the opportunity to apply previously taught skills, so each activity must be pre-taught before it is placed in a literacy station for independent practice. Students should know exactly what skill they are practicing and be able to explain the purpose of each literacy station activity. Literacy stations are an ideal way to keep students actively, yet academically, engaged and motivated during the uninterrupted reading block. Taking the time to develop literacy stations and teaching students routines for literacy stations provides the structure that allows teachers to teach in small groups. When structure is provided and rules and routines are established, students can build their knowledge and skills and practice what they have learned.

Using Time Effectively in Grades 4-6

Especially in the upper elementary grades, reading instruction should be taught both as a discrete subject and within content-area subjects. As a discrete subject, reading instruction should continue to develop foundational skills, including multisyllabic word attack strategies, skills and strategies to read informational text, and important vocabulary concepts including morphology and context usage. Within other content-area subjects, students should be taught the reading strategies and skills they need to comprehend specialized content texts and how to respond to text by reasoning logically and analyzing text. While the need to teach students

[12] Gersten et al., 2007

how to apply their reading skills and strategies to access increasingly complex content is most important in middle and high school, the upper elementary grades lay the foundation for student success.

In addition to whole class instruction, students in grades 4-6 will also profit from time spent in small groups and literacy stations, targeting particular skill needs and enhancing vocabulary learning. The sizes and times may be similar to those suggested for grades K-3. However, it is important to note that for students well below grade level in grade 4 and above, typical core material does not sufficiently address foundational skills in phonemic awareness and phonics. For students well below level in these skills, a separate or added intensive intervention may be necessary.

More Time on Task and More Time Reading

In addition to purposeful, small group instruction as a vehicle to improve student reading proficiency, partner and peer reading activities can increase practice opportunities. Students can be taught specific routines, methods and strategies for working together.[13] With explicit training, partners can productively work together on the following reading tasks:

- Fluency practice
- Decoding accuracy
- Content summarization
- Vocabulary practice
- Academic language practice in content-specific conversations[14]

Research-Based Reading Instruction that Targets Essential Skills and Content

The most prominent feature of scientifically-based reading instruction is the use of programs and materials based on scientific research. An effective reading program provides continuity for children and adults by supplying teaching tools in a

[13] Gersten et al., 2007; Klinger & Vaughn, 1999; Fuchs, Fuchs, and Burish, 2000.
[14] Gersten et al., 2007; Francis et., 2006; Diamond, Goldenberg et al., Vocabulary Booster Program in Press, 2009.

systematic progression. **The use of a reading program based on scientifically-based reading research saves time for the teacher and does not leave instruction to chance.**

Essential Reading Instruction

The table below spotlights the essential elements of reading instruction based on the findings of the National Reading Panel.

TIMELINE OF INSTRUCTIONAL FOCUS OF ESSENTIAL READING ELEMENTS							
GRADE	**K**	**1**	**2**	**3**	**4**	**5**	**6**
PHONOLOGICAL AWARENESS							
PHONICS **ADVANCED WORD STUDY**							
FLUENCY ***(ACCURACY, SPEED AND PROSODY)***							
VOCABULARY							
COMPREHENSION AND BACKGROUND KNOWLEDGE							

The essential research-based components of reading are included in the standards. Students who have the skills and understandings they need in these elements should be able to master the skills needed for Indiana's IREAD-3 assessment. The instructional emphasis shifts within the components and grades. In kindergarten phonological awareness instruction is a heavy emphasis and continues into the first part of first grade. Phonics instruction begins in kindergarten and grade 1 with sound-symbol correspondence, decoding of simple words and then progresses starting in the latter part of first grade to patterns and multisyllabic words. More difficult letter and multisyllabic patterns continue to be taught in

grades 2 and 3 with advanced word study focused on more complex word patterns and affixes commencing in grade 4. Fluency instruction begins with a focus on rapid recognition of letters, sounds, and phonemes starting in kindergarten, as well as immediate recognition of sight words, then moves to fluency with connected text at least by first grade. Fluency receives heavier emphasis in grade 2 and 3. Vocabulary development needs to be emphasized throughout the grades, often developed in the early grades as teachers read aloud to students. As students read independently, more and more of their vocabulary development will come through increasingly complex text they read on their own as well as through continued direct, explicit instruction in important "teachable" words. Comprehension instruction begins as listening comprehension in kindergarten. Listening comprehension continues to be emphasized, and reading comprehension instruction is added as students begin reading. Comprehension instruction, including the building of background through a common core of literary and informational text, must start early and continue to receive heavy emphasis.[15] Thus, rather than think of a "balanced model" of reading instruction which suggests that each skill element receives equal weight, it is technically more accurate to understand that at different grades, different skills warrant varied amounts of instructional focus. Each of the five scientifically-based reading components is described in greater detail below.

[15] National Reading Panel, 2000; Kamil et al., 2008

Grades K-3: The Foundation

Phonological and Phonemic Awareness Instruction

Phonological awareness is a sensitivity or awareness of the sounds in spoken words. It is an oral language skill. Phonological awareness includes awareness of the larger parts of spoken language: words in sentences, syllables, onsets and rimes, and ultimately the smallest units—the phonemes. "Phonemic awareness is the ability to detect, identify, and manipulate phonemes in spoken words."[16] Since a phoneme is the smallest unit of spoken language that makes a difference in a word's meaning, it's important that students can distinguish sounds in words. For example, the phonemes /h/ and /m / are different, and, therefore, the meaning of the word *hat* is different from the meaning of the word *mat.* Phonemic awareness is a reliable predictor of later reading achievement and impacts students' ability to learn to read.[17] The relationship between phonemic awareness and phonics is reciprocal; that is, phonemic awareness enables phonics instruction to be efficient and effective, and phonics instruction improves phonemic awareness.[18] Phonological awareness is developed along a hierarchy of skills moving from easier to more complex tasks and from larger language units to the smallest units—phonemes. Many different hierarchies of phonological awareness skills exist, some include rhyme recognition and production, both early childhood or kindergarten tasks. It is also important to understand that recognition and awareness tasks are often easier for students than production tasks. The table below shows a sample phonological awareness hierarchy that progresses from easier to more challenging tasks. Beyond a suggested progression of tasks, the

Key Terms

Phoneme: Smallest unit of sound, which when combined with other phonemes, creates a word.

[16] Diamond and Honig, *Teaching Reading Sourcebook*, 2nd Edition, 2008
[17] (Bishop 2003; Bus and van IJzendoorn 1999; Ehri et al. 2001; O'Connor and Jenkins 1999)
[18] Lane and Pullen 2004

National Reading Panel also indicated the importance of focusing on one task at a time and a focus on blending and segmenting activities.[19]

Phonological Awareness Task Hierarchy

	Task Name	Example
WORD	Sentence segmentation	Tap one time for each word you hear: *Tom loves cookies.*
SYLLABLE	Blending	Can you put these parts together to make a whole word: *pup ● pet*? (puppet)
	Segmentation	Clap the word parts in *rocket* (rock ● e*t)* How many times did you clap? (2)
ON SET-RIME	Blending	Let's put these sounds together to make a word: /*s/… /it/.* (sit)
	Segmentation	Can you say *sit* in two parts? (/s/…/it/)
PHONEME	Isolation	What is the first sound in *bus*? (/b/) What is the last sound in *bus*? (/s/) What is the middle sound in *bus*? (/u/)
	Identity	Which word has the same beginning sound as *cat*: *ran, cup*, or *mat*? (cup)
	Blending	What word is /*h/ /i/ /d/* ? (hid)
	Segmentation	How many sounds in *hid*? Tap them. (3) Can you say them sound by sound? (/h/ /i/ /d/)
	Deletion	What is *spot* without the */s/*? (pot)
	Addition	What word do you get when you add */s/* to the beginning of *peck*? (speck)
	Substitution	The word is *ran*. Change the */r/* to */m/*. What's the new word? (man)

[19] National Reading Panel, 2000

Phonics Instruction and Word Study

The aim of phonics instruction is to help children acquire alphabetic knowledge and use it to read and spell words. --Ehri, 2004

Phonics instruction teaches students the systematic relationship between the sounds (phonemes) and the letters and letter combinations (graphemes) in English. Forty-four English phonemes represent the sounds of the language, and in order to read, students need to understand what letters and letter combinations represent each of those phonemes. Effective reading instruction teaches students these sound-letter(s) relationships explicitly through isolating individual letter sounds (called synthetic phonics) as well as within the context of decodable (e.g. largely made up of words that contain the sound-letter relationships students have learned) or connected text.[20] In kindergarten and first grade, students focus on individual sound-letter/letter combinations and as they move up to grade 2 and 3, they focus on more complex forms and multisyllabic word patterns.

As a result of 50 years of combined research, Jeanne Chall and Helen Popp (1996) suggest the following phonics instructional sequence based on utility as well as ease of learning. Appendix A of the Common Core State Standards also provides research on phonics instruction. While no two commercial programs follow the exact same sequence, most are systematic and are appropriate. It is also vital to assess young students, as well as struggling readers, to find out what phonic elements they have or have not previously mastered.

- Single consonants and short vowels
- Consonant digraphs (/ch/, ch)
- Long vowels with silent *e* (CVCe pattern)
- Long vowels at the end of words or syllables
- *y* as a vowel
- *r-controlled vowels (/ur/, ur, ir, er)*
- silent consonants (the *k* in *know*)
- vowel digraphs, also called vowel pairs (the *ai* in *bait*)

[20] National Reading Panel, 2000

A solid approach to phonics instruction includes systematic and carefully sequenced instruction, coupled with sufficient practice to enable students to read words with automaticity. When students do come to an unfamiliar word, phonetically sounding it out is the most important strategy able readers use to decipher unfamiliar words and then store those words for future rapid retrieval.[21] Effective phonics instruction leads to automatic word recognition and increasingly effortless decoding of words. With repeated practice, students will learn to use this strategy regularly, increase their retention of words, and develop reading fluency, which in turn, is a necessary step to reading with comprehension.

Key Term
Automaticity: effortlessly; without conscious thought. Automaticity in reading words means students read them without sounding them out.

Fluency Instruction

Students should be taught explicitly to read fluently. Building fluency comes from more than just independent reading. In fact, having students simply read on their own, while important to develop vocabulary, content knowledge, and a passion for reading, is not the best way to promote reading fluency.[22] Research supports the practice of guided oral reading to develop fluent readers. Given that instructional time is limited, using classroom time for extended periods of silent, independent reading is neither efficient nor effective for students who are not yet fluent readers. During small group instruction, however, students who are already fluent readers can read independently, while the teacher provides guided oral reading practice for students still developing fluency. Fluent reading means a student is reading text accurately and at a sufficient pace so that comprehension is not impeded.[23] A fluent reader also reads with expression and appropriate inflection, referred to as *prosody.* Fluency instruction means

To become fluent readers, students need practice, practice, and more practice with reading.
--Osborn & Lehr, 2003

[21] Ehri et al., 2001; Adams, 1998; Hudson et Al., 2006
[22] National Reading Panel, 2000
[23] Pikulski & Chard, 2005; Simmons, Fuchs, Fuchs, Mathes, and Hodge, 1995

attention to four elements: accuracy, rate, prosody, and meaning. Since these four elements are intertwined, instruction on one element may also mean simultaneous attention to another element. However, fluency instruction can be varied, with a specific focus on one identified element. Students should practice reading fluently with connected or decodable text. By using this type of text, students will have a higher rate of success applying their phonics knowledge and phonemic awareness skills to words they are likely to be able to read. When students are given text to read in which too many of the words contain phonics elements or patterns they do not yet know, their fluency is inhibited, and teachers often misdiagnose the problem as one of a lack of fluency. In fact, when students are having difficulty decoding text, phonics instruction needs to be the focus. For fluency instruction to be effective, the text students are given needs to be adjusted to text students can read and reread with about 90-95% accuracy.[24] Besides decodable text for practice, students should also practice using grade-level text that may include more high frequency words and may be leveled based on systems such as Lexiles or Fountas and Pinnell levels. Fluency instruction may include repeated oral reading, peer or teacher-assisted reading, timed repeated reading, partner-rereading and even choral reading. The key is practice.

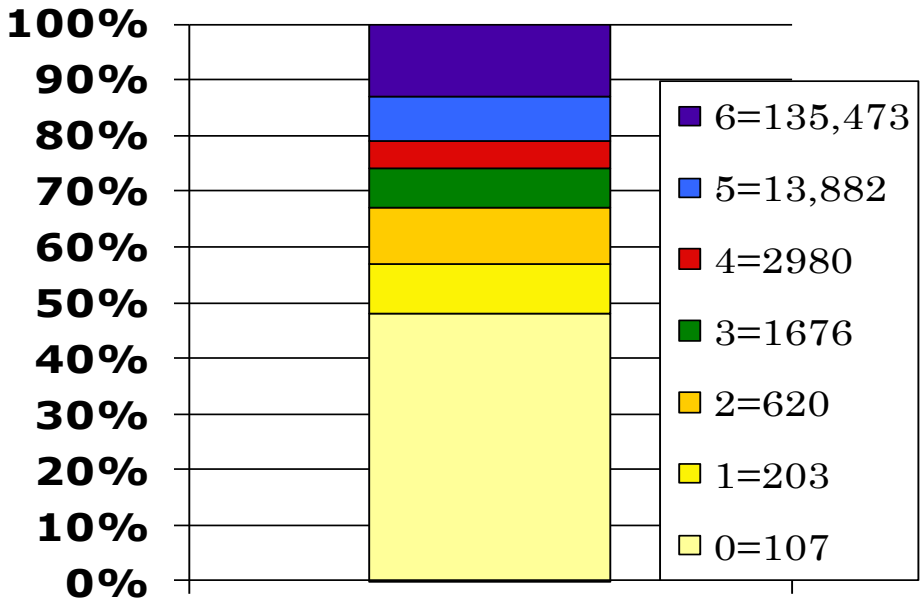
Vocabulary Instruction

Because students enter school with wide disparities in vocabulary knowledge, it falls to the schools to close the vocabulary gap, and this requires serious vocabulary instruction.[25] Vocabulary knowledge is a key component of reading comprehension. To be accomplished readers, students require both fluent word recognition and a sizable vocabulary; "the presence of either of these accomplishments does not guarantee a high level of reading comprehension, but the absence of either word recognition or adequate vocabulary ensures a low level of reading

Of the many benefits of having a large vocabulary, none is more valuable than the positive contribution that vocabulary size makes to reading comprehension. --Nagy, 2005

[24] Center for Improvement of Early Reading Achievement, 2001
[25] Biemiller, 2005

comprehension."[26] Dr. Freddy Hiebert identified seven word zones that indicate whether students are likely to have seen these words in written language or whether, if their teachers spend considerable time on the vocabulary, students will encounter the words any time soon. The first three zones with around 930 words account for 67% of the total words in written English. These are words such as the, of/away, between/day, and different. The next two zones –green and red—are words that occur approximately 10-99 times per million words of texts. These are words such as tree/travel and invited/blanket. The last two zones are where most of the words in English sit—and these occur infrequently—at least in written language. These words less than 9 times per million in the case of the blue words, words such as butterfly/frosting and less than once per million in the case of the purple words—words such as jeered/parasol.



The table below shows that by ensuring know and can use the vocabulary in books through Level F, students will have facility with the approximately 5,575 most frequent words (and many of the "derivatives"--i.e., "ed, ing, s, 's,

[26] Biemiller, 2005b

ly, er) of these words, significantly enhancing their opportunities as successful readers.

Level A	**300 most frequent words; short and long vowels**
Level B	**600 most frequent words; short, long and r controlled vowels**
Level C	**1000 most frequent words; all monosyllabic words**
Level D	**1000 most frequent words; monosyllabic words; two-syllable words with regular vowel patterns**
Level E	**2,500 most-frequent words (plus monosyllabic words)**
Level F	**5,000 most frequent words (plus monosyllabic words)**

As students move up through the grades, their need for even greater and more precise vocabulary knowledge grows. Students must continue to learn the meanings of many words not previously in their oral vocabularies. Much vocabulary learning occurs incidentally, as students engage in conversations with adults, while listening to books read aloud to them, and through independent reading. However, naïve readers and those seriously behind grade level simply do not read enough to gain sufficient vocabulary. Thus, all students, in particular English language learners and students who enter school with impoverished vocabularies, profit from explicit, robust instruction in vocabulary and the use of affixes and roots to determine meanings.[27] In school students can be taught about 300-400 words each year, or about 8-10 words per week.[28] Researchers recommend four components of effective vocabulary instruction:[29]

1. Wide and extensive independent reading
2. Instruction in specific words with multiple exposures to those words
3. Instruction in independent word-learning strategies (recognizing prefixes and suffixes, using context clues and dictionaries)
4. Word-consciousness activities such as word play

[27] Beck et al., 2002
[28] Biemiller, 2005a; Beck et al. 2002; Stahl et al., 1986
[29] Graves, 2000 (see SB)

Vocabulary Instruction in the Primary Grades

For all students, extensive and varied reading is a crucial component of vocabulary development. However, young readers and struggling readers usually do not read enough to grow their vocabularies through reading alone. That is why, in addition to extensive independent reading, instruction in specific words is vital. According to various researchers somewhere between 8-10 words per week is the right number to target for direct, explicit instruction.[30] For students in the primary grades, teachers should read aloud to them and identify and teach important words that are used in a wide variety of reading materials and across content areas. Andrew Biemiller, Ph.D., refers to these as "teachable" words, while Isabel Beck calls these Tier 2 vocabulary words. Both Biemiller and Beck have identified a similar sequence of instruction to teach the selected words explicitly after reading the story or text. In addition, stopping briefly at the point-of-use and providing a quick paraphrased, student-friendly explanation for the word is also helpful.

1. Use the word as it was used in the text.
2. Have students pronounce the word with you.
3. Provide a student-friendly explanation in language the students know for the word.
4. Use the word again in a new sentence.
5. Engage students to actively process the word and demonstrate their understanding.
6. Have students pronounce the word again.

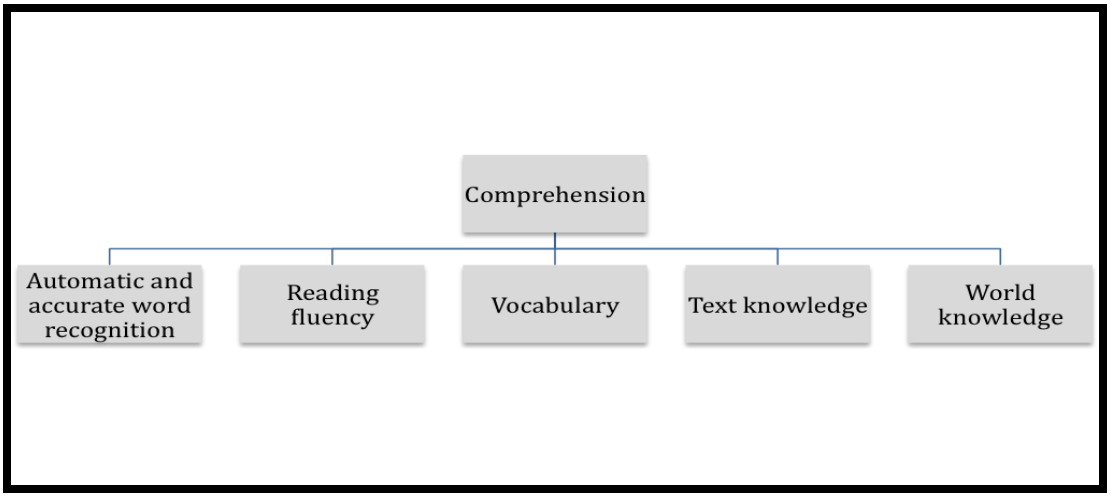
In addition to explicitly teaching important Tier 2 vocabulary words in the primary grades, it is important to teach students word-learning strategies to enable them figure out word meanings on their own. Specifically, primary grade students should learn frequently used word endings (suffixes) and how they affect meaning. These suffixes will include inflectional endings *-ed, -ing, -es, -s* and derivational endings such as *-ful*, *-less*, and *-ly*. They should also learn frequently used prefixes and how they affect word meaning such as *un-* and *re-*. Young students can also

[30] Biemiller 2005; Beck et al. 2002; Stahl et al. 1986 (see SB p. 412)

learn how context clues can assist them to figure out the meaning of an unfamiliar word. Finally, in addition to the explicit teaching of carefully selected words and instruction in word-learning strategies, primary grade students also need many opportunities to practice and apply the words they are learning and to have learning words be a fun and enjoyable experience. Young children naturally enjoy playing with language and can invent words using prefixes and suffixes they know, make up rhymes with new language, and solve riddles using new vocabulary. Most importantly, young children profit by seeing and hearing their teachers using "big" words precisely and adeptly.

Reading Comprehension

The major goal of reading instruction is to ensure students understand grade-level text deeply. To be a good "comprehender," students must bring to bear their phonological awareness, phonics, fluency, and vocabulary skills as well as their background knowledge.[31] The graphic below shows the skills that lead to strong comprehension.



All students, particularly students who continue to struggle with decoding and fluency, will benefit from comprehension instruction that is explicit. Teachers should provide direct instruction in specific skills and strategies to comprehend text,

[31] La Berge & Samuels 1974; Biancarosa & Snow, 2006; Willingham, 2006/2007

both literary and informational.[32] The National Reading Panel identified a set of strategies that have a strong scientific basis for improving comprehension; other researchers have expanded upon or enhanced these strategies.[33]

Research-Based Comprehension Strategies	
Self monitoring comprehension (which includes making inferences and synthesizing information)	Teaching students to recognize when they understand or do not understand the text they are reading
Cooperative and collaborative learning	Teaching students to work together to apply comprehension strategies
Graphic and semantic organizers/ constructing mental images	Teaching students to use and make graphic representations of the text and form mental pictures during reading
Answering questions	Teaching students how to answer questions by finding and using information from the text and from background knowledge in order to respond to teacher and student-generated questions
Asking questions	Teaching students to formulate questions for themselves as they read
Recognizing text structure	Teaching students to know and use the underlying structure of a story or text to recall information and make meaning of the content
Making predictions	Teaching students to think about and make informed guesses about what will come next in a text
Summarizing	Teaching students to distill and integrate ideas from the text

Explicit instruction in comprehension strategies is an important delivery method for many students. To be explicit, instruction must include teacher

[32] Sweet and Snow, 2003 (SB page 611); Williams, 2005 (SB page 620); NICHY, 2007; Biancarosa & Snow, 2006; Torgesen, Houston, Miller, & Rissman, 2007
[33] National Reading Panel, 2000; Duke & Pearson, 2002; Pressley, 2002a;

modeling and explanation, guided practice and independent application.[34] Teaching students comprehension strategies requires multiple practice opportunities. Students need to be supported as they learn new strategies in order to internalize them. Thus, teachers must "scaffold" reading instruction, gradually increasing the opportunities for students to transfer and apply the strategies they have learned to new and varied texts.[35] This will mean that many instructional episodes should include multiple strategies so that students practice the way good readers comprehend text.[36] For example, an instructional episode may focus on both making connections between new text information and prior knowledge or making predictions of text content and drawing inferences.

Key Term

Scaffold: Support. Literally scaffolding is used in construction to hold up parts of a building during the building process. Once those sections are complete, the scaffolds are removed, so the building can stand on its own.

While explicit comprehension instruction does result in reading comprehension improvement, Willingham makes the case that good readers do not require such explicit instruction.[37] In fact, a growing body of researchers are emphasizing the role that background knowledge about content (sometimes referred to as world knowledge) plays in reading comprehension. E.D. Hirsch Jr. and Willingham argue for greater attention to ensuring all students have a common core of grade-appropriate content. Cognitive scientists have known for some time that comprehension cannot be treated as a skill alone; rather, it results from the accumulation of prior knowledge, most of which is domain specific. Students acquire this prior

Schools should establish a common core of literary content, historical texts, mathematics content, and scientific content, to equitably equip all students with important background.

[34] Duke & Pearson, 2002; Griffin, Malone, & Kame'enui, 1995; Duffy et al, 1987; Torgesen et al., 2007, National Reading Panel, 2000 (see SB 624)
[35] Pressley, 2002; Palincsar & Brown, 1984
[36] Trabasso & Bouchard, 2002.
[37] Willingham, 2007

knowledge as a result of wide reading of newspapers, magazines, and books and the study of a content-rich curriculum. Simply teaching students strategies such as finding the main idea, making inferences, or retelling will not be sufficient.[38] Consequently, this framework also should spur schools to establish a common core of content that all students will have the opportunity to learn each year, content covering literature, history, science, mathematics, and the arts.

Reading in the Content Area

Reading in the content area poses special challenges for struggling readers and involves new vocabulary and text comprehension for all students. Given the increasingly rigorous demands students will encounter as they move up the grades, this framework includes a special focus on content area instruction, starting in grades K-3 and becoming even more focused in grades 4-6. To ensure that all students become proficient readers of a variety of content, the specific reading instruction block should include text not only from literature but also informational text about historical, technical, scientific subjects. In the primary grades, students should have opportunities to apply their growing decoding knowledge, learn new vocabulary, and apply their comprehension skills and strategies to content across subject areas. For example, after learning to decode and use affixes such as *-ed*, or *-ing,* students can also be directed to find words in a historical passage with those endings. If, a core reading program, for example, uses a specific strategy for teaching main idea, that same strategy should be practiced and applied to other content areas outside the reading block. By starting this process in the early grades, students in grades 4-6 will be better able to understand and learn from subject matter texts.

[38] Willingham, Daniel. "Reading Is Not a Skill—And Why This Is a Problem for the Draft National Standards." *Washington Post.* Ed. Valerie Strauss. *Washington Post*, September 28, 2009. Accessed online January 6, 2010. http://voices.washingtonpost.com/answer-sheet/daniel-willingham/willingham-reading-is-not-a-sk.html.

Adolescent Reading Instruction: Grades 4-6

In the document "Effective Instruction for Adolescent Readers," adolescent reading is defined as including grades 4-12.[39] The five essential reading components (phonemic awareness, phonics, fluency, vocabulary, and comprehension) are treated somewhat differently for grade 4-6 students. The table below compares the required elements at the two levels, adding a very important element—motivation.

Essential Reading Elements at the Primary Level vs. Grades 4-6		
Element	**Primary Level K-3**	**Grades 4-6**
Phonemic awareness	✓	
Phonics/Advanced Word Study	✓	✓ advanced word study
Fluency	✓	✓
Vocabulary	✓	✓
Comprehension	✓	✓
Motivation	✓	✓

Advanced Word Study

In grades 4-6 advanced word study focuses on teaching students to analyze longer, multisyllabic words. Students in these grades must be taught how to break difficult words into prefixes, suffixes, and roots and apply meanings of these to determine word meanings. They also use letter-patterns to decode larger words. From fifth grade on, the new words students encounter will contain two or more syllables.[40] Since intermediate grade content area text is composed of many of these multisyllabic words, gaining comprehension requires decoding those words and recognizing their meaning.[41] The foundational decoding skills students learn in grades K-3 is not sufficient for on-going reading success. Advanced word study requires explicit teaching of ways to read multisyllabic words. The following word

[39] Boardmen et al., Center on Instruction, 2008
[40] Cunningham, 1988; Nagy & Anderson, 1984
[41] Archer et al., 2003

study strategies are appropriate for teaching students to decode multisyllabic words:

- Teach students how to identify and break words into specific syllable types.
- Teach students how to blend parts together to figure out multisyllabic words.
- Teach students to recognize irregular words that do not conform to predictable patterns.
- Teach students to recognize and know the meanings of common affixes (prefixes, suffixes, inflectional endings) and roots, and this includes instruction in how words are related (e.g., transfer, transformation, transient) and when to use structural analysis to figure out a word.
- Teach students flexible strategies for breaking a word into parts.

Word study instruction should take place in both the reading classroom and in content area instructional time, focusing on base words and affixes that are directly related to the content studied. When teaching these content-centered words, the instructional emphasis should be on both decoding/spelling and on how the morphemes affect meaning.

Fluency

While fluency instruction is a particular focus in the latter half of grade 1 and then throughout grades 2 and 3, for students who are not reading fluently, instruction to develop and improve fluency needs to continue. Older students who continue to struggle with fluency will have difficulty comprehending their content-area texts since laborious text reading will tax their ability to construct meaning as they read. The Center on Instruction suggests two techniques to improve fluency in the upper grades:

- repeated reading of the same, previously taught passage to improve sight word recognition, and

- teacher-supported non-repetitive independent reading using passages at the student's independent or instructional reading level.[42]

Formal fluency instruction is best provided within the reading block and intervention. However, even within content area instruction, teachers can model fluent reading by reading aloud, use choral reading as a way to provide supportive practice for struggling readers, and provide opportunities for partner reading by pairing more fluent readers with less fluent readers to read together selected content passages.[43]

Vocabulary Instruction for Older Students

In social studies, science, technical subjects, and math, grade 4-6 students will encounter domain-specific vocabulary and academic language that will render the texts they must read ever more challenging. Teachers should continue providing students the meanings of new words during reading and other content instruction, as well as strategies for figuring out word meanings independently.[44] Selecting specific target words to teach becomes a critical first step in assuring upper grade students can comprehend their content-area texts. The table that follows highlights ways to select and teach specific words, recommendations for ways to teach word-learning strategies, and recommendations for vocabulary development in specific, academic content areas.[45]

[42] Boardmen et al., Center on Instruction, 2008
[43] National Institute for Literacy, 2007
[44] Kamil et al., 2008
[45] Boardmen et al., Center on Instruction, 2008

Approach	Method	Example
Selecting specific words	Three-tiered vocabulary method (Beck and McKeown, 1985) Recommendation**:** Focus on Tier 2 vocabulary words Pre-teach words that are important to the text understanding, that activate students' prior knowledge, that have multiple meanings, and that provide opportunities to further enhance conceptual understanding[46]	Tier 1: basic words Tier 2: words that are useful across many domains and academic words across the curriculum (observe, analyze) Tier 3: specialized content-specific words, low frequency words but necessary to a particular text or concept
Teaching the specific words	Start by providing a student-friendly definition. Then read a contextualized usage of the word and discuss examples and non-examples, all with the goal of providing multiple exposures to the word and actively engaging students.	Example: A *route* is the way you travel to get from one place to another. Example: "My dad found the shortest *route* to take to get to the campground."
Teaching word-learning strategies	Teach students about new words by having them use their prior knowledge about similar words and word parts. In addition, focus on affixes— prefixes, suffixes, and roots— coupled with contextual cues to aid students in figuring out the meanings of unfamiliar words.	Example: You already know the word *portable*, what do you think *transport* means? What word part is similar?
Teaching about Words in Specific Academic Content	Teach students an important corpus of academic words directly for the specific content. The words chosen should be selected from the social studies, science, technical, and mathematics texts students use. Prior to reading the text, students can be taught critical words through direct definition, examples and non-examples, semantic maps, and computer resources. They also can be taught specific affixes, roots, and suffixes that have generalized meaning to the content.	For example, the suffix *-ology* is useful in science. Number prefixes are useful to science and math (e.g., *tri-, bi-)*

[46] National Institute for Literacy, 2007

Comprehension in the Upper Grades

While the techniques and strategies previously referenced are important for all elementary students, the text demands change in grade 4 and above, and a more focused approach to content-area or informational text comprehension will be necessary. Students still benefit from explicit comprehension strategy instruction.[47] However, older students need to understand how, why, and when to use particular strategies and which strategies may be more or less useful for different types of texts (for example, prediction is not always the best strategy to use with informational text that focuses on steps or procedures). The following tips will enable teachers to scaffold comprehension instruction for older students across content areas:[48]

1. Carefully select text before introducing a strategy. For example, if the target skill is teaching main idea, informational text is preferable over narrative text.
2. Provide ample opportunities for students to apply the strategies they are learning to different texts.
3. Select text at the appropriate instructional level. Text that is too hard does not lend itself to teaching a new strategy.
4. Tell students what the strategy is, explain it, and provide examples, and tell students why they are learning it.
5. Model the strategy used by thinking aloud. Then provide guided practice with feedback, and once students are successful, transition to independent practice.
6. Be sure students understand that the focus is on understanding the text, rather than learning a strategy for strategy-sake.

Because upper grades transition from fairly easy-to-comprehend text to more complex, content-specific texts, students in grades 4-6 need to be alerted to specific features of textbooks and informational text. They need to be taught directly the distinction between different forms of literary texts—poetry, short story,

[47] Kamil, 2008;, Torgesen, 2007
[48] Kamil et al., 2008; Duffy, 2002; Duke & Pearson, 2002

drama—and informational texts that persuade, argue, or explain. Upper grade students who struggle with comprehension may be unaware of the underlying text structure in the materials they are reading, and instruction in text structures and features can help them access and recall information from their readings.[49] In the primary grades, students should be introduced to the basic features of stories: plot, setting, characters. However, older students need to understand theme, tone, language choice, and conflict. Older students also benefit from learning the different ways informational text can be organized to suit differing purposes: description, comparison and contrast, cause and effect, problem and solution, or chronological order. Each of these organizational methods makes use of specific signal words that can cue students, if they are taught to recognize them, into understanding an author's purpose. The chart below shows different texts and their signal words.[50]

Informational Text Structure and Signal Words	
Text Structure	**Signal Words**
Description	For example, for instance, main parts, such as, this particular
Compare-Contrast	Like, alike, same, just as, similar, both, also, too; unlike, differ, but, in contrast, on the other hand, however
Cause-Effect	Because, due to, since, therefore, so, as a result, consequently, lead to, this is why, the reason, result in, consequences
Problem-Solution	Problem, question, the trouble; solution, answer, in response
Chronological Order	First, next, then, afterward, later, last, finally, now, after, before, stages, steps

[49] Williams, 2005; Klingner, Vaughn, & Boardman, 2007
[50] Honig, Diamond, & Gutlohn, 2008

Literacy development must also be integrated across subject matter domains if we expect to develop students' multiple capacities. Science classrooms, for example, can contribute significant opportunities for students to acquire greater literacy proficiency, just as greater literacy proficiency is essential to students' acquisition of deep scientific understandings and inquiry skills. Science inquiry and literacy practices share important properties that make the integration of literacy and science particularly powerful. Participation in investigation-oriented science relies on sophisticated literacy skills, such as the ability to access scientific terminology, interpret arrays of data, comprehend scientific texts, engage in interpretive and critical reading, and read and write scientific explanations.[51] Both science and social studies instruction provides a setting in which students may be intellectually obligated to set purposes, ask questions, clarify ambiguities, draw inferences from incomplete evidence, and make evidence-based arguments—the very dispositions required as good readers and writers.[52] Professional development opportunities for teachers of early adolescents must go beyond training to implement instructional strategies, follow pacing guides, or implement core reading curricula. Professional development opportunities must also help teachers build the flexible repertoires of practice they will need to develop the advanced academic proficiencies of a broad range of students in all disciplines.[53]

Motivation

Students in grades 4-6 have increasing interests outside of school and express greater independence than do students in grades K-3. Because of this, keeping them engaged and motivated is quite important. Several researchers have focused on the issue of motivation with older students, noting that students in the upper grades need to have opportunities to read materials that relate to their lives, choose their own texts from a set of teacher-designed selections, and engage in deep and collaborative discussions about what they read.[54] If students are not

[51] Conley, 2008; Norris & Phillips, 2003; Osborne, 2002
[52] Cervetti, Pearson, Bravo, & Barber, 2006; Osborne, 2010; Pearson, Moje, & Greenleaf, 2010
[53] Ball & Cohen, 1999; Hargreaves, 2003; Sparks, 2004
[54] Kamil, 2008; Guthrie & Humenick, 2004; Biancarosa & Snow, 2006

motivated to read, comprehension can suffer.[55] Successful readers are more engaged with the texts they are reading than less proficient readers. Engaged readers are more apt to use their strategies to understand what they are reading because they are interested in the topic, and this in turn means they will learn more vocabulary, learn more content, and read more.[56] Since Anderson, et al. found a positive relationship between the amount of reading students do outside of school and their reading comprehension, vocabulary, and reading speed, motivated students who read more will be more proficient than unmotivated students who read less.[57] Guthrie and colleagues identified four practices that increase engagement and motivation:

- Setting a purpose for reading;
- Giving students opportunities to self-select text that they are able to read independently or with some instructional support;
- Ensuring the texts students read are interesting to them;
- Increasing collaboration opportunities and discussion during reading.[58]

While motivation is an important issue for older students, it is also important not to confuse skill problems with motivation. Students may also be unmotivated because reading is too difficult for them. This is especially true for students who had difficulty learning to read and thus find it unrewarding because it is too laborious.[59]

Programs, Materials, and Fidelity

By selecting programs and materials that focus on the essential reading elements and that are aligned to the best research available on instruction, schools will greatly improve the odds of more students learning to read well. Programs and materials selected by schools should be validated by

Key Term

Scientific: Programs that have been proven effective based on formal scientific studies supported by evidence.

Research-based: Programs designed to conform to elements deemed by science to be essential.

[55] Morgan & Fuchs, 2007
[56] Boardman et al., 2008
[57] Anderson, Wilson, & Fielding 1988
[58] Guthrie & Humenick, 2004
[59] Eccles et al., 1993; McKenna, Kear, & Ellsworth, 1995

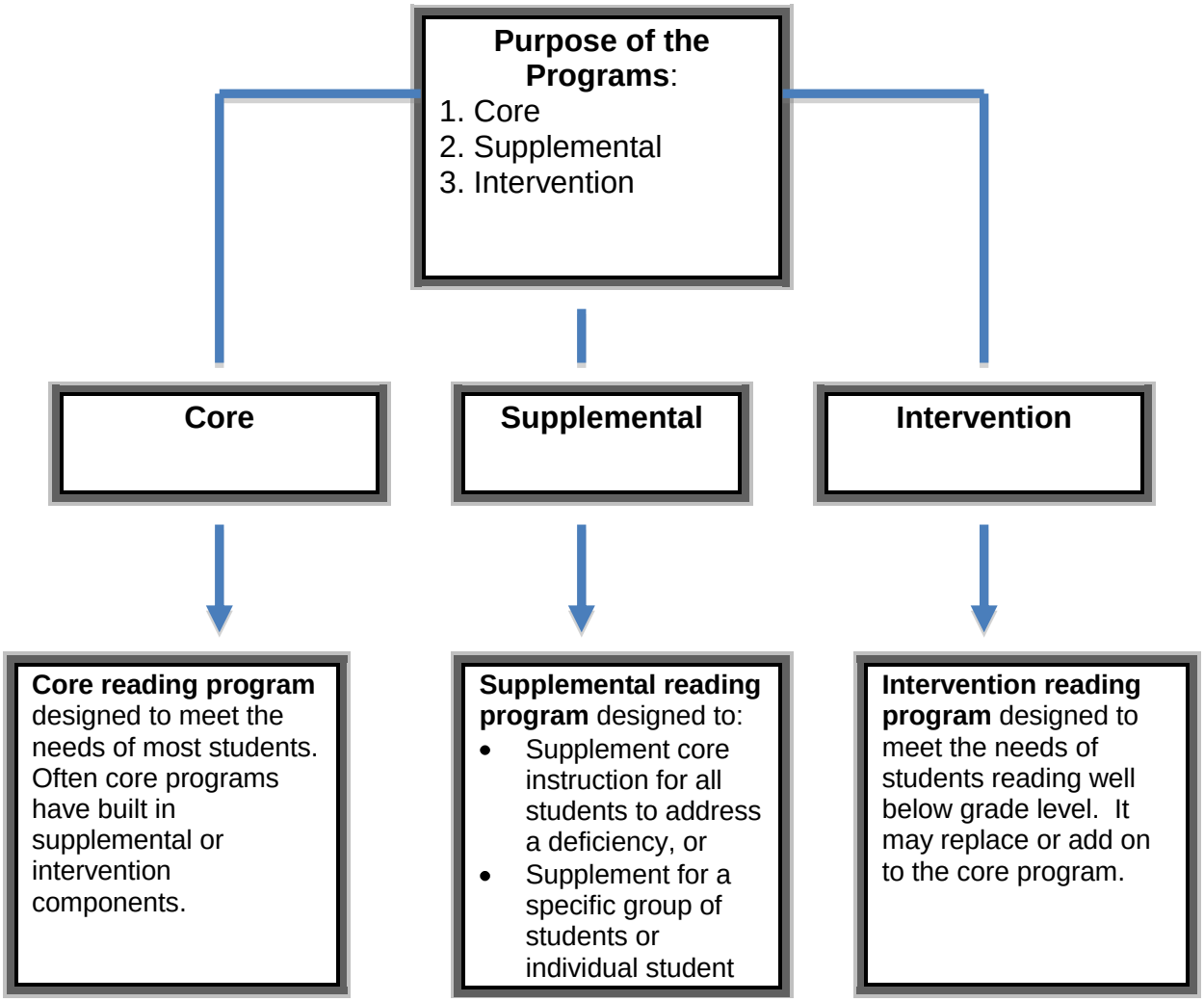
experimental research. These programs can be referred to as "scientifically-based." Scientifically-based programs have been identified as effective based on formal scientific studies. However, many commercial programs have not been subjected to rigorous randomized control studies, but are instead designed based on the reading elements that science has identified as essential to effective reading instruction. These materials can be referred to as "research-based."[60] Not all research-based programs have undergone scientific study. Each school should select research-based programs and materials that are designed to meet the needs of all the students in the school. Ideally, these programs also have scientific evidence of their effectiveness. Schools should use a core reading program, supplemental programs, materials, and intervention programs that are research-based and which are designed to meet the specific needs of the students in school with special attention given for students who are well below grade level and are not meeting reading goals. When schools select materials, it is vital that careful attention is paid to the alignment of the scope and sequence and instructional methodologies of the core, supplemental, and intervention programs. For example, the phonics sequence and method of phonics instruction in the core program may not align to the phonics sequence and instructional method in the supplemental or intervention program. If this is the case, it may be preferable to provide the intervention program's phonics instruction as a replacement to the core phonics instruction rather than in addition to it. In this way students will not be confused by two different approaches, two different sequences, and often two different sets of sound-letter patterns. The graphic that follows describes the three different types of materials and programs that are needed.[61]

The Core Reading Program

A core reading program is defined in this framework as a program that is systematically and carefully designed to incorporate all components of essential reading instruction across grades K-6. Many Indiana schools have selected core

[60] Oregon K-12 Literacy Framework, 2009
[61] Adapted from Vaughn, Hughes, Moody, & Elbaum, 2001; Oregon K-12 Literacy Framework, 2009

programs that fit this description. Some schools, however, have not purchased a core program, preferring to utilize multiple instructional programs or even designing their own. While this may be appealing, designing a complete program that is effectively sequenced and contains sufficient practice is very difficult.



Why a Core?

"A core reading program provides the entire staff with a systematic approach which scaffolds and spirals instruction with multiple opportunities for reading components and standards to be introduced, practiced, and mastered."

"A core program helps us guarantee that all teachers deliver consistent curriculum to all children in K-12. Curriculum must be properly planned, sequenced, and delivered to ensure it is guaranteed and viable."

Dr. Schauna Findlay, Director of Curriculum and Instruction
Indiana Department of Education

Thus, there are many advantages to selecting a well-designed scientifically-research-based program:

- **Students** benefit by having instructional continuity and coherence from grade to grade; the skills and content knowledge students learn will build upon previously acquired skills and content in a systematic way (i.e., a scope and sequence that is vertically aligned for all five reading components).
- **Teachers** benefit by being able to plan their instruction and pace together and share data that is meaningful and consistent. A common program provides the substance for a professional learning community to collaborate and refine their instruction.
- **Coaches** benefit by being able to learn one program well and thus provide consistent support to all teachers.
- **Schools** benefit by having a common core program around which to design cost-effective and efficient professional development.
- **Districts** with high mobility benefit from a common core program because they ensure consistency in instruction and scope and sequence regardless of which school a student attends.

The core reading program should be used for all students, including those meeting or exceeding grade level reading goals and those slightly below target areas. Even students performing well below grade level will benefit from a core program. A well-designed core program will address all five reading components comprehensively and provide explicit and systematic instruction in a carefully designed scope and sequence. Such a program, if taught by teachers with fidelity,

should ensure that most students will develop the necessary reading skills to enable them to meet reading goals and become proficient readers. If such a well-designed program is not used correctly, the likelihood that students will acquire the knowledge and skills they need to become proficient readers declines. Selection and faithful implementation of a core program may be the single best instructional intervention schools can choose to improve achievement.[62]

Just as faithful adherence to a medication regimen will increase the chances of a patient's health improving, so too faithful implementation of a core reading program increases the odds of most students learning to read. Contrary to some interpretations, fidelity does not necessarily mean that *all* aspects of a commercial program are implemented exactly as written by the publisher. Core programs can contain too much material for the time allotted and some program aspects may be too vague or lack sufficient explicitness to be effective. Some may not address the full range of what is called for by the standards. If this is true, teachers should work together to make weaker instructional aspects more explicit, more systematic, and aligned to standards. Assessment data inform decisions about program gaps and effectiveness. In some cases, supplemental materials will be needed to fill significant gaps in one or more of the five essential components of reading instruction. If too many gaps exist, it may be time to replace the core program.

What Is Fidelity?

Fidelity is:	Fidelity is not:
• following the scope and sequence of a core reading program for developing the skills of the five components of reading (this can be done with content area text in addition to the core), and	• teaching every story or lesson page by page
• the "unpacking" or the interpreting of the standards into a set of skills to be learned and sequenced to align with the core reading program, and	• teaching the standards or indicators without the level of detail and support provided by a well planned curriculum
• following the needs of the children based on data to deliver a well-conceived hierarchy of skills using systematic and explicit instruction, and	• just following a scope and sequence chart from a publisher or a set of leveled readers without the use of data
• ensuring curriculum is aligned with standards across and within grade levels with increasing cognitive difficulty at each level.	• individually unique with each teacher developing his or her own interpretation of the standards and sequence of instruction

[62] *Similar Students, Different Results: Why do Some Schools Do Better*? EdSource, 2006

Implementing a core program does not happen overnight. Teachers will need extensive and focused professional development and continued in-class support during the first year of implementation. In addition, differentiated professional development can target specific teacher or grade-level needs. Publisher professional development alone is usually insufficient. For more details and discussion of the type and quality of professional development implementation will require, see the section on Professional Development.

Selecting a Core Reading Program: A Critical Step

Selecting a core program is no small task. Different publishers present many commercial programs, all claiming to be research-based. It falls to the school or district staff to be thoughtful consumers and carefully examine whether or not the programs they are considering are really research- and scientifically-based. It is important to consider all components and aspects of the program. For individual schools, reviewing core reading programs requires a great deal of time and expertise. LEAs and the SEA should work together to comprehensively evaluate various programs and provide their findings to individual schools and districts. The following design elements will guide decision making:

- ☑ Is the instruction sufficiently explicit and systematic, carefully sequencing skills and tasks to foster mastery?
- ☑ Does the program provide ample massed and distributed practice of high-priority skills in order to facilitate retention?
- ☑ Does the program design include corrective feedback?
- ☑ Do additional intervention and differentiated instruction components exist and are they carefully aligned?
- ☑ Are directions to the teachers clear?
- ☑ Does the program demonstrate and build relationships between foundational skills and higher order skills?[63]
- ☑ Does the program align with academic standards?

[63] Simmons & Kame'enui, 2005 "Consumer's Guide to Evaluating a Core Reading Program Grades K-3: A Critical Elements Analysis"

What is Systematic and Explicit Instruction?

Systematic instruction is teaching in a carefully selected and logical sequence that builds subsequent skills upon prior skills.

Explicit instruction is characterized by clarity of explanation and directions, clear modeling, guided practice, and structured feedback and application of the learning. Instruction is usually carefully broken down so that discrete skills required for subsequent skills are taught in a focused and overt way.

Example from a phonics lesson:
Model Sound-by-Sound Blending: Say: *Today, I am going to show you how to blend words sound-by-sound. Watch me blend the first word.* Print the first letter in the word *at*. Say: *Sound?* Point to the letter *a* and say: */aaa/*. Print the letter *t.* Say: *Sound?* Point to the letter *t* and say: */ttt/*. Point to the left of *at* and say: *Blend.* Sweep your finger under the *a* and *t* as you blend the sounds together without stopping: */aaattt/*. Point to the left of *at* and say: *Watch me as I read the whole word.* Quickly sweep your finger under the whole word and say *at*. Prompt students to say the word: *at*.

Checklists are available as guidelines for districts and schools to compare reading programs and intervention materials with the recommendations derived from reading research. The purchase of a reading program is a significant investment. Therefore, the program should be thoroughly reviewed before resources are committed. Following are examples of online resources to review reading:
Oregon Reading First Center at http://reading.uorgeon.edu/curricula/con_guide.php
Florida Center for Reading Research at http://fcrr.org/FCRRReports/index.aspx#
Reviewing a Reading Program at http://centeroninstruction.org

Supplemental Materials and Programs

Supplemental materials are selected either because they provide additional practice and more intensive instruction of a particular component of reading, because they fill a gap in the core program in a particular skill, or they extend and enrich learning for high performing students. For example, a supplemental phonemic awareness program may be used for kindergarten and first grade students needing more practice and more explicit instruction. A supplemental fluency program may augment fluency work provided in the core program. A supplemental phonics program, carefully linked to

Benefits of a Supplemental Program:
1. Address a gap in the core program for *all* students.
2. Address the needs of a subset of students.

the core phonics program, may be needed for even more explicit instruction and also additional practice. Typically, a supplemental program addresses discrete tasks, breaking skills down so that students can master the particular skill before moving on to the next skill.

When a supplemental program is considered because of a skill gap in a core program, the supplemental program should be used for *all* students to fill the gap. For example, the core program may insufficiently develop vocabulary, and a supplemental vocabulary component is selected to augment the core program's instruction. In filling a program gap, the supplemental program is used to add to the core, not substitute for it.

Exception to <u>Adding</u> a Supplemental Program to the Core: Phonics

Each commercial program has its own phonics approach and sequence. For example, a core program may begin with single consonants, progress to short vowels, and then move on to digraphs. A supplemental program, however, might start from a different sequence of single consonants, then move to short vowels, and proceed to long vowels. In the core program, a sound-by-sound blending method may be used, but in the supplemental program, continuous blending may be used along with a special color-coding and graphics for the phonic elements. Students having to learn both approaches and both sequences will become confused. It is also important for the school staff to be mindful that the decodable text that comes with the core program and aligns to its phonics sequence may not be appropriate to use with the supplemental program's phonics sequence and vice versa. This is because a decodable text's decodability is based on the words containing the previously taught phonics elements as well as the previously taught high frequency or irregular words.

Many core programs, however, now come with their own supplemental program components, and these usually align to and add to the core in a consistent way.

In addition to the need to fill a gap for *all* students, another reason to select a supplemental program is to provide added, more intensive and more explicit practice and instruction in a particular skill element for a subset of students. When this is the case, the program will again be used in addition to the core rather than as a replacement for it, unless the area of focus is phonics and, as noted in the box above, it conflicts with the core program. In this case, because the supplemental program may be a better fit, it can replace the phonics instruction entirely.

Just as the selection of the core reading program requires careful analysis, teachers also should thoroughly evaluate supplemental programs, particularly because they are often needed for struggling readers. Another instance where supplemental materials may be necessary is for high ability students. Supplemental programs can extend the core reading program. However, to appropriately meet the needs of most high ability students, a replacement core program is needed. Replacement core programs are typically developed by researchers and publishers who are experts in working with gifted and talented students.

Intervention Programs

Unlike supplemental programs that either fill a gap for all students in a core program or add additional practice and intensity for a subset of students targeting specific skills, an intervention program is more comprehensive. Intervention programs are usually engineered for students who are well below grade level. Core reading programs may address all components of literacy instruction: reading, writing, conventions, spelling, and often oral communication. Intervention programs in reading, however, usually target only the five essential components of reading. Schools selecting such programs should do so carefully, seeking in particular those interventions supported by empirical evidence as a result of scientific studies. In the absence of such data, it will be important to critically evaluate the alignment of the program with scientifically-based research and its ability to work well for the target audience.

A Supplemental Program Resource for K-3: freereading.net

Open source material, that is material available online and at no cost, is increasingly popular. One such program does an excellent job of providing supplemental instruction and material for grades K-3, particularly for grades K-1. While the program includes discrete activities in the five components of phonemic awareness, phonics, fluency, vocabulary, and comprehension, an organized and sequenced intervention for grades K-1 is also available.

While many intervention programs address phonemic awareness, phonics, fluency, vocabulary, and comprehension, some specialize in one particular reading element. Just as is the case with supplemental programs, some core programs now come with their own interventions. This will more likely ensure consistency of alignment. However, in some cases, the interventions designed to accompany core programs are not sufficiently intense to meet the needs of students well below grade level.

What Characterizes an Intervention Program?

√ More explicit and systematic than a core or supplemental program
√ Mastery-focused with clear criteria for proficiency within a carefully sequenced set of learning objectives
√ Built-in formative measures of progress for ongoing monitoring
√ Detailed pacing

When implementing an intervention program for students, it is important to determine if the program is sufficiently comprehensive to work along with the core reading program. In many cases, if the intervention program is not included with the core program, it will usually differ in consistency of scope and sequence from the core program and will work better as a replacement for those elements of the core program included within the intervention. Students may still be involved in other elements within the core program, such as writing instruction and even literature and comprehension. For students in grades 4-6 who are far below grade level goals, an intervention program is more likely to replace the core reading program. This is because most cores at those grade levels do not address early

foundational skills such as phonemic awareness or phonics and may not include sufficient appropriate materials for fluency practice.

Intervention programs are not intended to be permanent replacements for the core program. The goal is to instruct students intensely for a designated period of time in order to return them to the core program. This requires careful monitoring, adherence to a clearly specified instructional pace, and attention to mastery. A school grade-level team or RtI problem-solving team (see the Assessment section) should focus on the progress of students within an intervention, help identify the extent to which the intervention is working, make adjustments in a timely manner, plan for students to return to the core program, and assist colleagues with lesson delivery and pacing.

The student's assessment data will determine whether or not an intervention is needed. For example, kindergarten students who begin school substantially at risk on early screening measures will benefit from an intensive intervention right from the start alongside the core program, usually an intervention that focuses on phonemic awareness and beginning phonics. This intervention will require added time. Older struggling readers will also require added time beyond the regular reading block, especially when using a specialized intervention that replaces the core program. However, a significant caution must be heeded. Schools and districts are under increased pressure to place low-performing students into reading intervention programs with the well-intentioned goal of increasing their literacy proficiency, yet some researchers suggest that the skill-based instruction they receive may perpetuate low literacy achievement rather than accelerate literacy growth.[64] It is critical that intervention programs for adolescents accelerate students' learning and attend to complex reading behaviors in addition to previously unlearned foundational skills. Moreover, we must guard against intervention programs which are designed to address reading problems resulting in lost opportunities to learn in other academic subjects, particularly, science.[65]

[64] Allington and McGill-Franzen, 1989; Greenleaf and Hinchman, 2009; Haycock, 2001; Hiebert, 1991; Hull & Rose, 1989; C. D. Lee & Spratley, 2010
[65] McMurrer, 2007; Rentner et al., 2006

Withdrawing adolescents from instruction in science and other subjects to remediate reading difficulties threatens to exacerbate historic inequities in achievement for populations of students traditionally underrepresented in the sciences.[66] There is, therefore, increasing urgency to integrate reading instruction into science and other content area learning in order to advance the reading and content area achievement of underachieving youth.

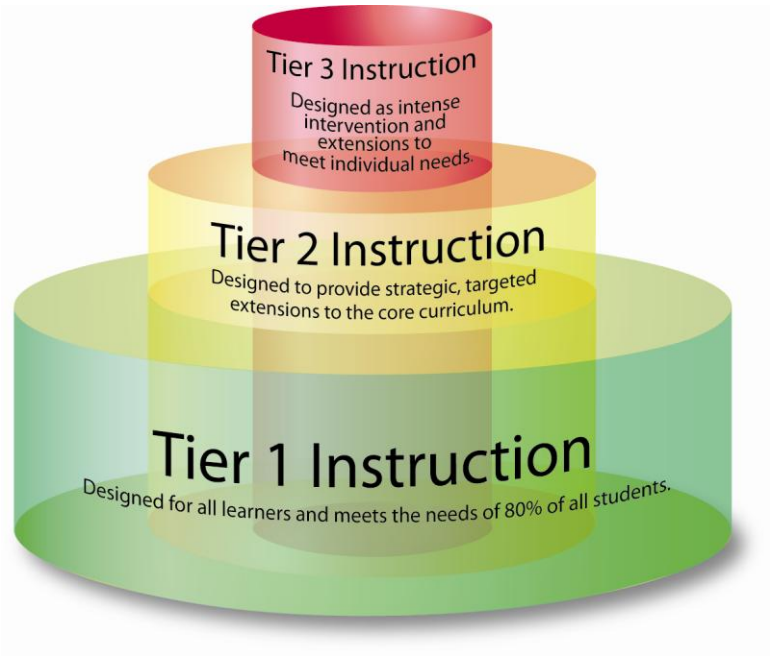
Targeted and Differentiated Instruction to Meet Student Needs

For below grade level students, targeting their needs is essential. This means instruction will have to be differentiated. However, high performing students also benefit from differentiated instruction. The graphic below shows the characteristics of differentiated instruction.

Differentiated Instruction Is…
• Proactively-planned up front to address needs • Rooted in assessment—based on data from screening and formative assessment • Varied by intensity and degree of explicitness—more intense and more explicit for students well below grade level; less intense and less explicit for high performing students • Varied by degree of scaffolding—carefully constructed supports with more or less teacher modeling and guidance • Varied by pace—faster or slower, distributed practice, cumulative review • Small group, partner, one-on-one-based on needs identified and response to instruction and intervention

Differentiated instruction, when effective, is crucial to ensure all students become or remain proficient readers. By learning to differentiate instruction effectively, a teacher can often meet the needs of a range of learners within the regular classroom without additional intervention. Three tiers of instruction, reflected in the graphic that follows. characterize a differentiated model. Indiana's Response to Instruction plan reflects the layering of support that rests on the Tier 1 instruction.

[66] Barton, 2003



How to Differentiate

The first step is to analyze screening and formative assessment data as well as any diagnostic test information and use the findings to group students based on level and need. Tier 1 students are reading at or above grade level and are at low risk for reading failure. Tier 2 students typically are not meeting grade level goals and benefit from strategic, targeted interventions in addition to the core curriculum. Tier 3 students are often far below grade level in many foundational elements of reading and need an intensive intervention to meet their needs. Advanced students who are in Tier 1 core instruction, however, also benefit from specialized instruction. The table that follows from Indiana's Response to Instruction Guidance Document describes the various elements of a three-tier model.

	Tier 1	Tier 2	Tier 3
Materials	Scientifically- or evidence-based core curricula and instructional materials Above grade level materials used with advanced replacement core	Scientifically- or evidence-based materials aligned to Tier 1's core curriculum and selected to match student needs and progress monitoring data Above grade level materials used with advanced replacement core	Scientifically or evidence-based instructional materials selected to meet individual needs of struggling students not responding to Tier 2 and Tier 1 Students with most significant need may require a replacement core program

Instructional organization	Whole group instruction of strategies and skills Differentiated, flexible groups determined by benchmark and progress monitoring data for application of skills, reteaching, additional practice, compacting, and/or challenge activities	Small, homogeneous groups Differentiated instruction increases in depth and intensity based on benchmark screening and progress monitoring data Frequent opportunities for students to practice and apply their learning Scaffolded critical and creative thinking	Individual or small, homogeneous groups Classes specifically designed for students identified as having high intellectual abilities in a general or specific academic domain Explicit, intense, and scaffolded Critical and creative thinking of appropriate depth and complexity Multisensory approaches as appropriate
Instructional responsibility	Highly qualified classroom teacher with training and requisite background to implement scientifically-based best practices for all learners, including those with above or below grade level needs High ability licensed teacher for the cluster of identified students with high ability	Highly qualified classroom teacher, coordinated with content and program area specialist or other appropriate certified personnel High ability licensed teacher for the cluster of identified students with high ability Additional support opportunities provided by trained personnel and supervised by licensed staff	Highly qualified classroom teacher, coordinated with content and program area specialist or other appropriate certified personnel High ability licensed teacher for the cluster of identified students with high ability Additional support opportunities provided by trained personnel and supervised by licensed staff
Assessment	Benchmark data (3 times a year), progress monitoring, diagnostic assessments, including those that assess above or below grade level Pre-assessment is needed to plan instruction	Diagnostic and ongoing progress monitoring (at least monthly or bi-monthly) to determine growth and make targeted instructional decisions	Diagnostic, ongoing progress monitoring that provides data to address intense needs (weekly or bi-weekly)
Parent communication	Consistent communication with parents regarding student progress and academic needs	Required written notification to parent when student experiences academic difficulty and requires intervention not provided to all	Required written notification to parent when student experiences academic difficulty and requires intervention not provided to all See notification requirements for students who have not made adequate progress and have been provided with appropriate instruction
Scheduling	Occurs daily in the general education classroom Reading: 90 minute uninterrupted block	In addition to Tier 1 for students requiring reinforcement or extension For students with high ability, vertical extensions to the curriculum add further challenge	Up to 60 minutes added time or 90 minutes if replacing Tier 1 instruction

Movement among Tiers

It is important for the school to plan for a way to transition below grade-level students, who are receiving interventions that remove them from the core program, back to the core program when it is clear they will be successful. The purpose of an intensive replacement intervention should be to accelerate students' reading development to bring them to grade level. For this transition to occur, additional reading instruction outside the 90-minute reading block will be vital. Some schools, particularly those with large numbers of at-risk students, may choose to implement an intensive intervention program from the start with all students. Students may be grouped by instructional level across classrooms and begin the program at different entry points and progress through the program at varying paces. English learners (EL) will have particular needs that also will require attention to their language levels as well as their reading skill needs when determining small group placements.

ELs are a heterogeneous group with differences in ethnic background, first language, socioeconomic status, quality of prior schooling, and levels of English language proficiency. Effectively educating these students requires diagnosing each student instructionally, adjusting instruction accordingly, and closely monitoring student progress. For example, ELs who are literate in a first language that shares cognates with English can apply first-language vocabulary knowledge when reading in English; likewise ELs with high levels of schooling can often bring to bear conceptual knowledge developed in their first language when reading in English. However, ELs with limited or interrupted schooling will need to acquire background knowledge prerequisite to educational tasks at hand. Additionally, the development of native like proficiency in English takes many years and will not be achieved by all ELs especially if they start schooling in the US in the later grades. Teachers should recognize that it is possible to achieve the standards for reading and literature, writing & research, language development and speaking & listening without manifesting native-like control of conventions and vocabulary.

Second-language learners benefit from instruction about how to negotiate situations outside of those settings so they are able to participate on equal footing with native speakers in all aspects of social, economic, and civic endeavors. ELs bring with them many resources that enhance their education and can serve as resources for schools and society. Many ELLs have first language and literacy knowledge and skills that boost their acquisition of language and literacy in a second language; additionally, they bring an array of talents and cultural practices and perspectives that enrich our schools and society. Teachers must build on this enormous reservoir of talent and provide those students who need it with additional time and appropriate instructional support. This includes language proficiency standards that teachers can use in conjunction with the ELA standards to assist ELs in becoming proficient and literate in English. To help ELs meet high academic standards in language arts it is essential that they have access to:

- Teachers and personnel at the school and district levels who are well prepared and qualified to support ELs while taking advantage of the many strengths and skills they bring to the classroom;
- Literacy-rich school environments where students are immersed in a variety of language experiences;
- Instruction that develops foundational skills in English and enables ELs to participate fully in grade-level coursework;
- Coursework that prepares ELs for postsecondary education or the workplace, yet is made comprehensible for students learning content in a second language (through specific pedagogical techniques and additional resources);
- Opportunities for classroom discourse and interaction that are well-designed to enable ELs to develop communicative strengths in language arts;
- Ongoing assessment and feedback to guide learning; and
- Speakers of English who know the language well enough to provide ELs with models and support.

Spotlight on English Learners

Schools must first ensure that students receive English Language Development instruction. Some students will also need an intervention. Not all intervention programs are designed to meet the needs of English learners. In some cases, a commercial intensive intervention used for English learners should not be the same one used for native English speakers. Several intervention and supplemental programs exist that are designed specifically to address syntactic, morphological, and language needs of English learners. It is likely that a school will have more than one intensive intervention program in order to meet the needs of all students.

Developing a Plan to Meet Student Needs

To be certain that instruction is appropriately differentiated for students to meet their needs, Indiana's Problem Solving Model (PSM) provides guidance for arriving at a robust instructional plan for each student. Indiana's Response to Instruction (RtI) Guidance Document contains a template for designing an Intervention Action Plan. Similarly, this Intervention Action Plan can be adapted for content-area classes, identifying specific supports for science, social studies, and mathematics. The plan may include specific strategies, time for advanced word study, content-specific vocabulary, etc. An adapted sample of a content-specific support plan is provided below:

Content Area: Social Studies, Grade 5

Interventions	Resource/Strategy	Timing	Implementation Dates	Progress Monitoring	Progress Monitoring
Intervention 1	Advanced word study of multisyllabic words from textbook with focus on prefixes and suffixes	3 times a week, for 15 minutes	Begun by social studies teachers October 5	Date of quiz: Result:	Date of quiz: Result:
Intervention 2	Vocabulary enhancement lesson on words specific to theme/text	Daily, 10 minutes	Begun by social studies teachers Nov. 5	Date of quiz: Result:	Date of quiz: Result:

Effective Reading Instruction Delivery

An excellent program, whether core, supplemental, or intervention is critical to successful reading instruction; however, it can only be as effective as the quality

of delivery. Teachers make the difference.[67] Skillful teaching applied to essential content in well-designed programs will increase the probability that students will learn to read at or above grade level. Teachers who are adept at delivering complex reading instruction in an engaging manner are most likely to meet the needs of advanced, at grade level, and below grade-level students. Effective reading instruction delivery is not illusive: key features stand out in quality delivery. These features are independent from specific programs or materials, and while some or all may be incorporated directly into commercial programs, it is more likely teachers will need to attend to these features to augment their programs. The chart below identifies nine features of effective instructional delivery.[68] These features have been studied and replicated by the Center on Teaching and Learning at the University of Oregon and have been referenced extensively in Reading First.

[67] Moats, 1999; Lyon & Chabra, 2004
[68] adapted from Oregon Reading First; see http://oregonreadingfirst.uoregon.edu/inst_obs.html

General Features of Instruction

1. **Instructor models instructional tasks when appropriate.**
   - ❑ Demonstrates the task (e.g., uses think alouds) and proceeds in step-by-step fashion
   - ❑ Limits language to demonstration of skill
   - ❑ Makes eye contact with students, speaks clearly while modeling skill

2. **Instructor provides explicit instruction.**
   - ❑ Sets the purpose for the instruction
   - ❑ Identifies the important details of the concept being taught
   - ❑ Provides instructions that have only one interpretation
   - ❑ Makes connection to previously-learned material

3. **Instructor engages students in meaningful interactions with language during lesson.**
   - ❑ Provides and elicits background information
   - ❑ Emphasizes distinctive features of new concepts
   - ❑ Uses visuals, scaffolds, and manipulatives to teach content as necessary
   - ❑ Makes relationships among concepts overt
   - ❑ Engages students in discourse around new concepts and elaborates on student responses
   - ❑ Reads aloud to build comprehension and develop rich vocabulary

4. **Instructor provides multiple opportunities for students to practice instructional tasks.**
   - ❑ Provides multiple opportunities to practice each new skill at introduction and after each step
   - ❑ Elicits group responses when feasible and individual checking for understanding
   - ❑ Provides extra practice based on accuracy of student responses

5. **Instructor provides corrective feedback after initial student responses.**
   - ❑ Provides affirmations for correct responses
   - ❑ Promptly corrects errors with provision of correct model
   - ❑ Limits corrective feedback language to the task at hand
   - ❑ Ensures mastery of all students before moving on

6. **Students are engaged in the lesson during teacher-led instruction.**
   - ❑ Gains student attention before initiating instruction
   - ❑ Paces lesson to maintain attention and transitions quickly between tasks
   - ❑ Maintains close proximity to students
   - ❑ Intervenes with off-task students to maintain their focus

7. **Students are engaged in the lesson during independent work.**
   - ❑ Independent work routines and procedures previously taught
   - ❑ Models task before allowing students to work independently
   - ❑ Checks for student understanding of the task(s)
   - ❑ Students use previously-learned strategies or routines
   - ❑ Independent work is completed with high level of accuracy

8. **Students are successful completing activities at a high criterion level of performance.**
   - ❑ Elicits a high percentage of accurate responses from group and individuals
   - ❑ Holds same standard of accuracy for high performers and low performers
   - ❑ Adjusts instruction for inaccurate responses and to provide additional instruction as needed

9. **Instructor encourages student effort**.
   - ❑ Provides feedback before, during and after task completion
   - ❑ Provides specific feedback about student's accuracy and/or effort
   - ❑ Majority of feedback is positive
   - ❑ Celebrates or displays examples of student success in reading

Summary

Louisa Moats was correct when she wrote *Teaching Reading IS Rocket Science*.[69] High quality reading instruction that has a strong likelihood of ensuring students read at or above grade level requires the judicious and conscious integration of five elements: (1) Sufficient and effectively used time, (2) Instruction and strategies that target essential content, (3) Programs and materials that focus on the essential content and are implemented with fidelity, (4) High quality instruction, differentiated to meet student needs, and (5) Effective teacher delivery. Only when all of these components are present, will students meet Indiana's goal of all students reading at or above grade level.

[69] Moats, American Federation of Teachers, AFL-CIO, 555 New Jersey Ave., NW, Washington, DC 20001-2079 (Item No. 372). Web site: http://www.aft.org. 1999